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14. ABSTRACT Singapore's National Service (NS) military draft is heavily scrutinized today, but critics fail to consider still-relevant circumstances that first led to NS, including Singapore's unexpected independence from Malaysia; its loss of defense guarantees along with Britain's withdrawal; and its small ethnic Chinese population in a non-Chinese neighborhood. NS also enabled a military without drawing manpower from the economy. It fostered national and ideological unity for this new migrant nation, being enforced on all echelons of society. NS has been mostly successful, but critics argue an all-volunteer force would cost less, yet offers better readiness; NS overburdens men in their prime; low birth rates favor a smaller all-volunteer force; motivation for NS has diminished due to massive immigration; and technology can mitigate manpower demands. Each argument, however, is unconvincing - one must consider Singapore's unique circumstances and NS's benefits regardless of its shortfalls. An all-volunteer force also does not cost less; conscripts and reserves can be effective soldiers; Singapore is mitigating opportunity costs to conscripts; and technology is not a complete solution.						
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MASTER OF MILITARY STUDIES

TITLE:

DEFENDING SINGAPORE IN AN UNCERTAIN WORLD: A FORCE OF NATIONAL
SERVICE CONSCRIPTS OR ALL-VOLUNTEER PROFESSIONALS?

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Executive Summary

Title: Defending Singapore in an Uncertain World: A Force of National Service Conscripts or All-Volunteer Professionals?

Author: Lieutenant-Colonel Kuok Hsin Chew, Republic of Singapore Navy

Thesis: Considering Singapore's unique external and internal security and nation-building circumstances, and contrary to the arguments of present-day critics, military conscription through National Service does continue to be relevant, viable, and of crucial value to the country.

Discussion: Military conscription in Singapore through National Service (NS) dates back nearly half a century since independence in the 1960s. In that time, however, Singapore has enjoyed largely uninterrupted peace and stability, leading to the growth of a population that has little to no first-hand appreciation of the tumultuous conditions at independence that provided the impetus for NS. Today, more than ever, NS has come under greater scrutiny with critics being more open and enabled by ready access to social media. Their arguments, however, fail to consider the broader circumstances that led to Singapore implementing NS in the first place, which are still relevant. These include events leading to Singapore's unexpected independence from the larger Malaysian nation; the sudden loss of guarantees to its defense along with the break from Malaysia and the withdrawal of British forces; and its small concentration of ethnic Chinese in a region dominated by largely non-Chinese neighbors. Beyond defense, NS further allowed Singapore to raise a military without permanently drawing valuable manpower away from its fledgling economy. NS also helped to create a national identity and ideological unity for this new nation of recent migrants. This was aided by the egalitarian approach of subjecting all echelons of society, privileged or not, to the duties of national defense. Such considerations are not unique to Singapore, having been seen throughout the global history of military conscription, and NS has been mostly successful. Meanwhile, critics argue that it would cost less to maintain an all-volunteer professional force; such a force would offer more operational readiness; NS unnecessarily burdens young Singaporean men in their prime; declining birth rates mean a smaller all-volunteer force is preferable; citizen motivation for NS has diminished as a result of massive immigration; and technology can alleviate many of the military manpower demands currently fulfilled by conscription. Each argument, however, is unconvincing as they do not effectively consider Singapore's unique circumstances and the overwhelming benefits of NS in spite of its shortfalls. Among other things, it does not actually cost less to raise an all-volunteer force; conscripts and reserves, if properly managed, have been proven to be effective in defense; measures are already underway to mitigate the handicaps conscripts face vis-à-vis those who do not serve; and technology alone is not a complete solution.

Conclusion: Singapore's founding leaders implemented NS as a response to tumultuous external and internal conditions that faced their new nation in its infancy. It was virtually a necessity at that time. As something so intricately tied to the nation and its society, however, NS could never be perfect. Nonetheless, it is still fully relevant despite present-day criticisms and importantly, efforts continue to be made to improve on its shortcomings. In the meantime, it remains the duty of citizens who benefit from the nation to serve the nation, particularly in defense.

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Preface

Born as an able-bodied male citizen of the Republic of Singapore, my eventual conscription into the Singapore Armed Forces as a part of the National Service system was an ever-looming and, at times, fearful prospect. As a child, it was hard enough to appreciate the concept of citizenship, much less the myriad duties associated with being a citizen of any nation, of which military service arguably constitutes one of the greatest commitments of an individual in the name of his or her country. My experiences were further complicated by a life spent growing up away from Singapore and beyond its mechanisms for National Education – by the time I served, I had spent some 19 years between Japan and the United States, with only occasional visits to Singapore. Needless to say, I felt no small amount of disconnection at that time with the country I was about to commit over two years of my life to as a soldier.

Admittedly, it was a legal commitment more than a sense of duty that carried me through my first months as a recruit. During that time as an active-duty conscript, my decision to join as a professional volunteer soldier was also rooted in something less glorious: a desire to jumpstart my working career – the transactional exchange of remuneration for my services. It was, in other words, a job to get me started until such time that I found my true calling.

More than ten years later, I look back on that time and reflect on how little I truly understood about the commitment I had tacitly made by venturing down the path of a full-time job in the military and what eventually has become a career. I chose to write about National Service in Singapore because without it, I may never have been compelled to build any true bonds of loyalty to the country of my citizenship. More so perhaps than most others who had grown up entirely in Singapore, has National Service drastically skewed the course of my life at a juncture I least expected to be possible, and I would dare say, for the better.

If, having not grown up in Singapore during my most formative childhood years, I can now say that I fully appreciate my country's unique position and the compelling reasons for National Service, then I do not see why any of my fellow citizens should not. This is not to say that we are all not entitled to our opinions and constructive criticisms, but merely that in spite of the shortfalls we observe in the system as concerned citizens, it is still our duty to serve our country's best interests whether we think it is perfect or not. In writing this paper, I do not profess to be an expert or to have all the answers. I simply hope to be able to draw attention to the issues at hand and suggest that while not all problems are so easily reconcilable, they are also not so detrimental as to demand that we do away with a military conscription system that has so far served us well.

In preparing this paper, I would like to express appreciation first to fellow colleagues in Singapore. In one way or another, their actions have allowed me the luxury of time to contemplate and complete this paper over the course of the past few months. I have also to thank Major Foo Chan Wong of the Republic of Singapore Navy and my brother, Dr. Kuok Ming Chew, both of whom assisted with sources half a world away in Singapore. Next, I would like to generally thank the United States Marine Corps Command and Staff College for running this program and welcoming international military students to participate. Specifically, I would like to extend my gratitude to Dr. John Gordon, my program mentor at Marine Corps University, who not only took the time to improve on my authorial shortcomings, but also helped immensely in clarifying my thoughts, while patiently giving me all the mental space I needed to work. Might I also add that he has been a true gentleman throughout our interactions. Finally, I would like to thank my wife, Karen, for her patience and support. She has allowed me to complete this paper at a pace of my choosing, always understanding my commitments.

The focal point of global geopolitics in the coming decades will be the Asia Pacific, a region that is home to the major powers, both present and rising. We are in a state of flux, which brings with it a degree of strategic uncertainty...

Teo Chee Hean, Deputy Prime Minister of Singapore, 2009-present and Singapore Minister for Defense, 2003-2011 at the 8th International Institute for Strategic Studies Asia Security Summit 2009¹

I...(wanted the) younger generation of Singaporeans who took stability, growth, and prosperity for granted...to know how difficult it was for a small country of 640 sq. km with no natural resources to survive in the midst of larger, newly independent nations all pursuing nationalistic policies...We faced tremendous odds (in 1965) with an improbable chance of survival.

Lee Kuan Yew, first Prime Minister of Singapore, 1959-1990 in *From Third World to First: The Singapore Story: 1965-2000*²

Introduction

In the last decade, a number of states – France, Germany, Spain, Sweden, and others – have abandoned conscription supposedly in favor of more efficient all-volunteer professional military forces. What should Singapore do in a time of growing “strategic uncertainty,” to use the Deputy Prime Minister’s words, in order to remain secure?

For nearly half a century, the Republic of Singapore has carried out a system of military conscription stemming from external and internal security and nation-building concerns at the time of its independence. Since 1967, the year the system commenced, all 18-year-old male Singapore citizens and permanent residents have been required to enlist into National Service (NS), where conscripts, or National Servicemen, serve two-year terms with one of three uniformed services: the Singapore Armed Forces (SAF), the Singapore Police Force, or the Singapore Civil Defense Force. But while NS was peacefully implemented and remains largely an accepted part of life in the island state, a new wave of criticism undermining its necessity is now materializing at various echelons of Singaporean society – one that is quite different from the private gripes of apprehensive teenage draftees and fretting parents compelled to support

their sons during two years of military service, and one that coincides with apparent global trends towards abandoning conscription.³ This paper will argue that, considering Singapore's unique external and internal security and nation-building circumstances, and contrary to the arguments of present-day critics, military conscription through National Service does continue to be relevant, viable, and of crucial value to the country.

To examine this point, the first element will be a review of the security considerations facing Singapore when it initially gained independence, to be followed by a look at the beginnings of NS and the impetus behind it. Next will be a brief global and historical contextualization of NS as a form of conscription. NS is followed by a reserve obligation up to the age of 40.⁴ To date, around 700,000 Singaporeans have participated in it, and it has become a national rite of passage.⁵ As an independent country, however, Singapore has enjoyed largely peaceful and stable conditions.⁶ Consequently, an entire generation of Singaporeans has grown up with no first-hand recollection of the tumultuous conditions their country faced in the 1960s, which ultimately contributed to justifications for NS.⁷ Finally, a discussion of NS as it relates to Singapore today both in terms of its success and current arguments against it, and a concluding look at the future of NS and what it means to Singapore.

Alone in a Big World – Singapore's Security Outlook in 1965

To appreciate Singapore's decision to establish military conscription through NS, it is necessary to understand the conditions into which the country was born. This includes conditions facing it, both external and internal, which had a bearing on its security as a sovereign state.

As a British colony, Singapore (illustrated in Figure 1 below) first gained internal self-governance in 1959 and, by 1963, independence. Empowered by popular mandate, the ruling

government headed by the People's Action Party (PAP) held at that time that Singapore, being too small to be viable on its own, would be best served by being a part of the wider Malayan Federation, an independent collection of states that was once a British protectorate.⁸ It was envisioned that while Singapore maintained its own government, its defense would become a federal responsibility and its existing military units were subsumed under Malaysia (a new name adopted by the federation in conjunction with the inclusion of Singapore in 1963). By 1965, however, a series of irreconcilable differences over politics and racial issues between Malaysian and Singaporean leaders led to formal separation with Singapore becoming a sovereign republic – in essence, the PAP, at the head of Chinese-dominated Singapore, could not reconcile its philosophies of a common free market with the Malaysian government's disposition towards pushing Malay interests.⁹



Figure 1: The island-state of Singapore positioned strategically at a major crossroad of global commerce, the Strait of Malacca, yet precariously proportioned in relation to its regional neighbors¹⁰

Despite this political split, both Malaysia and Singapore recognized their respective vulnerabilities as new nations, and continued to pin hopes on a mutually supportive defense arrangement. This arrangement, however, was also short-lived, and rifts soon began to develop in this tenuous relationship. The PAP recognized that Chinese-dominated Singapore would not be treated with equality while it depended heavily on a large Malay neighbor for its security. Within a year, all Singaporean military personnel and assets that had originally been pooled with Malaysia for the federal military had returned to Singapore; the country severed its defense arrangements with Malaysia; and it began to fully pursue the development of an independent national armed force.¹¹

Other factors further complicated the external security situation for Singapore. By the end of 1966, Britain, facing economic pressures at home, announced plans to drastically draw down and eventually relinquish its military commitments to Malaysia and Singapore. This was a move that caught the governments of both new Southeast Asian countries off guard.¹² Following this, British defense commitments to the region were re-articulated in the Five Power Defense Arrangement (FPDA) of 1971. This superseded the earlier Anglo-Malayan Defense Agreement (AMDA) of 1957, which had called for automatic external involvement (Britain, Australia, New Zealand) should Malaysia or Singapore come under attack. Significantly, instead of providing for the AMDA's "concrete security guarantees," the FPDA served more as a conduit for consultation on what actions might be taken in the event of external aggression towards Malaysia or Singapore. This tumultuous period was also marked by Indonesian aggression – known as "the period of Confrontation" between 1963 and 1965 – as a response against the creation of an independent Malaysia, which Indonesia viewed as a front for continuing British colonial influence and a threat to Indonesian regional dominance and interests.¹³ Beyond Singapore's

immediate neighborhood, the concurrent Vietnam War, with its escalating turn of events, further shook confidence in Southeast Asian regional stability.¹⁴

Internally, Singapore faced its own array of security uncertainties. Although the country's demographics at independence comprised a relatively homogenous Chinese majority, a significant Malay minority of just under a quarter of the population meant that underlying ties with Malaysia still ran deep. An example of the social instability this created manifested when tensions arising from the same political differences that led to the split with Malaysia sparked vicious racially-based riots in Singapore.¹⁵ The PAP in Singapore, fresh from turmoil with the Malaysian government, further faced the specter of communism within the country as an ideology promising to bring wealth to the masses at a time when Singapore did not enjoy the level of economic prosperity it has today. For sure the proliferation of communism in Vietnam also did not help matters.¹⁶

Such were the security conditions facing Singapore from when it left Malaysia as an independent country in 1965, and when it made the monumental decision to implement military conscription. Its independence – the break from Malaysia – was a surprise; its defense situation – the withdrawal of British forces – caught it off guard; and the country was a small concentration of ethnic Chinese people in a region of far larger and, at that time, intimidating non-Chinese neighbors. Not surprisingly, the need for a credible defense, a guarantor of survival in such uncertain and lonely times, was foremost on the minds of the country's founding leaders.

Every Citizen a Soldier – The Beginnings of NS

The idea of NS was not new to Singapore when then-Minister for Defense, Dr. Goh Keng Swee, introduced it to the public in 1966. In response to communist uprisings in Malaya during the Malayan Emergency, the British first introduced their National Service Ordinance to

Singapore in 1952.¹⁷ The act was premised on the idea that if Singapore were to eventually be a self-governing territory, its own people should be able to defend themselves. Thus, it called for all Singaporean males between 18 and 20 years of age to register and be inducted into either the then-Singapore Military Force or the then-Civil Defense Corps. The act, however, was not enforced beyond the middle of 1954 as it incited violent riots amongst a Chinese population that equated it to the defense of a colonial system favoring only the British elite.¹⁸

Fast forwarding to 1966, however, the scenario was quite different with Singaporeans at the head of the new country's government and in charge of their own destiny. In turn, the argument and support for NS was also drastically different. The ruling PAP recognized that Singapore, with its small size, was not able to guarantee its own security through its own isolated defense efforts. The options provided by a credible Singaporean military, however, would allow the country to exert a measurable amount of influence over the adjacent and strategically important Strait of Malacca, where so much of the world's commerce passed in transit. Contributions to the security of this vital sea line of communication would allow Singapore to establish regional security arrangements with extra-regional powers, to which Singapore could become a valuable and responsible partner. In turn, external powers with a stake in the region would more likely be committed to regional stability and therefore, Singapore's own security.¹⁹

The need for a credible defense does not alone, however, explain why the NS model of conscription was adopted. After all, logic implies that a force of dedicated professional soldiers would be more proficient than a force of reserves and would be more ready to respond to a security situation as tenuous as that of Singapore's in 1966. What set Singapore on the path towards NS were the cold hard facts of its domestic situation. Significantly, Singapore had no natural resources and could count only on its manpower to drive its economy. At independence,

however, a total population of less than two million meant that any real hope of developing a thriving economy would have to rely on the contributions of every single person. It was simply untenable to detract a significant proportion of the population from direct economic contributions for the sole purpose of defense. Moreover, the likelihood of attracting sufficient numbers of volunteers in the first place out of such a small population was less than satisfactory.²⁰

Therefore, in the words of the country's first prime minister, Mr. Lee Kuan Yew, "For this purpose (the defense of Singapore), a short period of military service followed by a longer period of reserve service would enable more extensive participation while keeping the total number of men under arms to a limit that our economy can bear."²¹ It was envisioned that successive batches of National Servicemen, having completed their full-time service commitments and transitioned into the reserves, would become a trained and equipped fighting force that could be called upon when needed.²² A core group of dedicated professionals would, at the same time, serve to maintain the military's essential skills, develop long-term plans, capabilities, doctrine, and training. They would raise, train, and sustain skills that would transcend successive batches of conscripts.

Beyond the external security benefits of establishing a credible military, the founding government also recognized a role for NS in tackling another characteristic of their new country. As a society comprising numerous recent migrants, Singapore lacked a strong national identity. It was a genuine fear that this could degrade Singapore to a state where individual groups served only their self-interests and fostered no sense of belonging to a larger whole. The idea was military service as a means of nation-building, and as Dr. Goh said, "of creating a stronger national consciousness among our (Singaporean) people...is at least as important as the purely defence [*sic*] considerations."²³ By affecting significant proportions of the population for years

to come, it was hoped that beyond building a credible defense for Singapore, NS would also quickly build positive social virtues such as discipline and moral values in a fledgling society. It was strongly believed that there was no faster means of achieving national loyalty and a national sense of identity than direct participation in the defense and armed forces of one's country.²⁴

More specific to the idea of nation-building was the view that NS would also be a unifying force between various factions of Singaporean society. For one thing, being administered amongst impressionable young men meant that NS could act as some measure of control against opportunities for disruptive ideologies, such as communism, to enamor Singapore's youths, a very real fear in 1960s Singapore.²⁵ NS, therefore, served to some extent as a means of achieving ideological unity, and as the first intake of NS became reality, the government further recognized yet another opportunity to foster social unity: the first batch of conscripts to be enlisted into NS came not from an equal spread of all 18-year-old male Singaporeans, but primarily from amongst the younger of those already employed in the government's cream of the crop, the administrative service. This decision publicly demonstrated that those in positions of privilege, at least in the public sector, were in the words of Dr. Goh, "setting a good example to the people of Singapore" and this example "should be emulated by all ranks in the civil service as well as those with good and comfortable jobs in private enterprise."²⁶ From this perspective, NS served also to achieve some level of socio-economic unity, for it did not matter if one was socially privileged – the national call of duty still demanded that one endured the hardships of military training and deployment along with those of less privileged backgrounds. Thus, on July 26, 1967, after one-and-a-half years of intensive study, NS officially began.

Military Conscription – Not an Atypical System

Before further examining NS vis-à-vis its specific achievements and criticisms, it is useful to place Singapore's adoption of military conscription in a global and historical context. This is to appreciate that military conscription is by no means an isolated or abnormal phenomenon.

A form of state service, military conscription dates back as far as ancient Egypt (2700 BC). At one extreme, it was implemented as virtual life imprisonment, where conscripts served for a lifetime. This was practiced in 19th century Russia. In pre-Meiji Japan, duty was inherited and familial standing at birth determined one's military service obligations. At the other extreme, military conscription has been as diluted as comprising just a few short months of basic training to nothing more than registration as a contingency for an unlikely draft.²⁷ This is much like what the United States practices today where all 18-year-old males are required to register with the Selective Service System.²⁸

Today, over 70 countries practice a system of compulsory military service in peacetime through conscription, and while there are variations of exactly how conscription is administered between different countries, what remains quite consistent are the reactions and concerns of those affected by it.²⁹ From the Roman Empire to the United States during the American Civil War, for example, wealthier draftees have sought to buy their way out of service by hiring substitutes.³⁰ Also, during its civil war, the United States faced a similar concern as Britain did with the National Service Ordinance in Singapore – conscription was seen as tyrannical, and represented servitude of the oppressed masses in the name of the privileged few.³¹ In France, where conscription ended in 2001, many conscripts had felt they were not gainfully employed in the military and could have made better use of their time.³² Similar sentiments were reflected in

Spain where conscription was ended in 2002.³³ Other common concerns include the morality of separating families to fight for the affairs of the state and whether or not conscription was fairly applied to all echelons of society.³⁴

The reasons for conscription have also varied throughout the ages. The Roman Empire sporadically enforced conscription that was driven either by some kind of emergency, including preparations for war, or simply a need to fill vacancies in their military when they were short of volunteers.³⁵ In more modern times, countries like the United States, for example, have resorted to conscription for similar reasons in times of war, such as during the world wars of the 20th century.³⁶ Beyond security needs, other countries have also seen conscription as a means of fostering social integration or even a means of preventing overbearing military dominance by mitigating the formation of an isolated military that is not representative of society at large.³⁷

As will be seen in the case of Singapore, many similar concerns have been raised. Indeed, such concerns over NS in Singapore should come as little surprise given how consistent and prolific they have been throughout the global and historical application of military conscription. Just as military conscription has been applied differently depending on the specific needs of each country, however, NS must be evaluated in the context of Singapore's own unique circumstances.

The Arguments for NS Success in Today's Singapore

Unlike its failed colonial predecessor, the British National Service Ordinance of 1952, NS can largely be called a success in the sense that the SAF it helped to create has been consistently credited today as the most advanced and capable military in Southeast Asia. Of course NS alone did not achieve this, but its contributions are undeniable as an integral part of the SAF.³⁸ NS has also succeeded in becoming an established national institution that is mostly

embraced by Singaporean society, including not just males who are eligible for conscription, but also their family, social, educational, and career networks, all of which play a part in providing support away from home during full-time and reserve service. For example, the first point at which male Singaporeans are exposed to the SAF hardly begins with enlistment at the age of 18. As early as elementary school, students in Singaporean public schools are exposed to the Ministry of Education's National Education program, a large part of which specifically aims to promote an understanding of the country's unique defensive vulnerabilities and how the SAF (and therefore, NS) plays a crucial role.³⁹ Relatedly, Singapore's National Cadet Corps (NCC), an organization for middle to high school students, plays an active role as a commendable extra-curricular activity offered through Singapore's public schools. Sanctioned by the Ministry of Defense and the SAF, NCC helps to imbue young Singaporeans with an appreciation for national defense and the SAF by focusing on developing members (male and female) through fun, military-centric activities.⁴⁰ It is worth noting that many National Servicemen who had actively participated in NCC as grade school students have also shown a greater affinity for military life in the SAF.⁴¹

Perhaps the greatest testament to general social embracement of NS today is a marked increase in the numbers of conscripts who have volunteered to extend the duration of their two-year full-time service through the 1996 Voluntary Extension of Service Scheme. Despite a very buoyant economy, 2010 saw over 350 conscripts voluntarily extend their full-time service to the SAF by up to nine months, some had even opted to defer their personal advanced academic studies.⁴² This was the highest figure ever for the 15-year-old scheme where the annual average has been closer to 200 voluntary extensions.⁴³

From such data, NS, it would seem, is here to stay. Not only is it reasonably championed as a very real necessity to sustain a credible defense for a small and seemingly vulnerable island-state, it is also very much a part of the Singaporean way of life.⁴⁴ It does, however, have its critics.

Arguments Against and Contemporary Criticisms of NS

Singapore's experience with NS faced its fair share of criticism and resistance in the 1960s, albeit not to the scale experienced by the British in the 1950s. Nevertheless, the government recognized this problem of a natural resistance to mandatory military service early on and in the times leading to NS, pursued a coordinated media campaign that barraged the country with messages expounding the need for able-bodied young men to serve in the country's defense.⁴⁵ Traditionally viewed by Chinese Singaporeans as a career for social outcasts and criminals, soldiering was instead portrayed as a citizen's duty and the soldier was accorded a heroic image in the many public announcements made by top government officials, civil servants, and community leaders. These efforts ultimately paid off and social resistance to NS proved to be comparatively benign.⁴⁶ For many years since 1967, the uncertain external and internal conditions facing Singapore at independence remained fresh in the minds of those who grew up in that time and eventually became dedicated National Servicemen.

Memories of hardship and insecurity, as well as the sense of duty to overcome these challenges do, however, tend to fade with successive generations.⁴⁷ Such were the conditions for most Singaporeans from the mid-1970s onwards when the country experienced unprecedented economic growth.⁴⁸ Today, a generation that has grown up knowing only a peaceful, prosperous, and stable Singapore does not necessarily share similar sentiments or beliefs in the need for NS. Couple this phenomenon with Singapore having an exceedingly high level of Internet penetration

as well as individual vocalism enabled by mass social media, and it is perhaps expected that renewed criticism of NS has begun to resurface.⁴⁹ Not surprisingly, much of this stems from individuals voicing their opinions and concerns through online postings.⁵⁰ What is most striking though is that the incumbent PAP government's philosophy, with its unwavering support for NS, now faces what might amount to unprecedented competition from opposition political parties.

From the perspective of individuals, a look at a selection of popular sites reveals some of the following common issues.⁵¹ First, the financial costs associated with NS. The argument is that maintaining a conscript system with citizen reserves is far more expensive than maintaining a small, but fully all-volunteer military. Second, an argument associated with the first: that a fully all-volunteer military, even if smaller, would retain a higher level of operational readiness and competence and would therefore be a more effective means of defense. It would also be more motivated as a fighting force – its individual soldiers having chosen defense as a career. A further take on this is the notion that reserves are less likely to be ready in time to defend the country in the event of a major conflict and even then, would be less competent. Third, the opportunity costs facing male Singaporeans and permanent residents who are required to serve in the SAF. Singapore is a globalized economy with a diverse population, of which nearly 40 percent are non-citizens who compete with Singaporeans in the workforce, the argument being that since they are not obligated to serve two years of full-time military service along with ten years of annual training as reserves, non-citizens are ousting otherwise equally-qualified Singaporean National Servicemen for jobs, especially amongst the country's many foreign employers.⁵²

Fourth is a declining population due to low birth rates, which means that annual cohorts of National Servicemen will begin to decline significantly. For over 30 years, Singapore has

struggled with this challenge, and the total fertility rate reached a new all-time low of 1.15 in 2010 where 2.1 is the rate required to replace the population.⁵³ Given the impact this will eventually have on the SAF's reserve order of battle, it is argued that only a defense concept centered on a smaller all-volunteer professional force would be viable in the future. Fifth, motivation for NS appears to have declined in the general population over time, in large part due to the fact that the pool of Singaporeans eligible for NS is shrinking as a proportion of the country's population in the face of increased immigration. From 2007 to 2011, just four years, the proportion of non-citizens in Singapore has increased by nearly ten percent.⁵⁴ The argument here is that more than ever, those conscripted into NS are acting in the name of those who, while benefitting from what Singapore has to offer, are not themselves obligated to the defense of the country – the notion of the masses serving for the benefit of the privileged, something not so different from Singaporean sentiments over the British National Service Ordinance over half a century ago.

In terms of opposition political parties, the two main contrarian perspectives on NS come from those shared by the Singapore Democratic Party (SDP) and the Worker's Party (WP) during Singapore's most recent general elections in March 2011. The SDP holds first that current periods of NS obligation (during initial full time service and reserve service), are too long, and that with increased training efficiency, these could be reduced to 12 months and obligations to 30 years of age, respectively, down from 24 months and 40 years of age. Along these lines, it argues too that many National Servicemen are not employed to their full potential during their service, and particularly of importance to reserve service, ending obligations at 30 years of age would help National Servicemen move on with familial duties as well as compete on more equal footing for employment with non-citizens. Moreover, the tendency towards physical

decline in non-career military members beyond the age of 30 potentially reduces their operational effectiveness, making the ten years of service between 30 and 40 a moot point. Second, the SDP holds that the future of Singapore's defense would be better served by heavier investments in an all-volunteer professional force.⁵⁵ The WP argues that by leveraging on technology and advances in military hardware, NS could be reduced as a burden on young Singaporean males by enabling a reduction in the duration of their full-time service obligations.

By and large, it comes as no surprise that the critical perspectives on NS held by opposition political parties during the last general election seem to broadly reflect the sentiments of individuals who are also critical of the system. Both the SDP and the WP were out to win votes and perhaps targeted these particular members of Singaporean society. Assuming these reflect their genuine sentiments, however, the real gravity of opposition perspectives over NS stems from the fact that the Singapore general election of 2011 saw the incumbent PAP, unquestionably dominant in Singapore politics since the 1960s, win by its *smallest* margin ever since independence.⁵⁶ Significantly, this year marked the first time ever that an entire constituency has been won over by an opposition party – the WP. Indirectly, this could be indicative of small, but building momentum in overall Singaporean sentiments against NS.

Countering the Critics

Initially, the arguments against NS seem logical, but upon further scrutiny, they are not fully convincing because they fail to consider both the wider circumstances facing Singapore as well as the outweighing benefits that the NS system brings to Singapore in spite of its shortfalls. The factual basis for some of these arguments is also questionable, particularly in the case for the argument that as a conscript system with citizen reserves, NS is more expensive than a fully all-volunteer professional force. Obviously, the SAF's true order of battle is classified information

and for this reason, it is difficult to arrive at an exact elaboration as to the size of the theoretical all-volunteer force that could replace conscripts in NS. Thus, to examine the merits of this argument, it is assumed that the 40,000 full-time conscripts the SAF holds at any given time is a reflection of the number of additional all-volunteer professional servicemen it would require should NS cease to exist.⁵⁷ As elaborated in Appendix A, limitations of open-source information on the monthly salaries of professionals and allowances for conscripts requires another assumption: that this theoretical number of 40,000 fully comprises junior officers up to the army rank of Lieutenant. Maintaining this force as conscripts would cost the Singapore government nearly 990 million Singapore Dollars over a two-year period, while the equivalent cost for professionals would be just over 3 *billion* Singapore Dollars out of a total defense budget of just over 12 billion Singapore Dollars.⁵⁸ This amount suggests that strictly from the point of view of financial costs, it is inefficient to maintain an additional 40,000 professionals in the SAF.

The same can be said for the SAF's citizen reserve of 300,000 servicemen.⁵⁹ National Servicemen in the reserves can be called for up to 40 days of military training each year until the age of 40. During this time spent away from civilian work, the Ministry of Defense provides make-up pay, which is the difference between civilian incomes lost and NS reserve training allowance.⁶⁰ As worked out in Appendix B, even if the SAF's full complement of reserves is fully-deployed for their maximum commitment of 40 days per year of reserve training (an unrealistically high presumption due to differing training needs and tempos), the cost to the government would amount to just under 4 billion Singapore Dollars over two years. As can be seen, the cost of just 40,000 extra professionals alone to account for 40,000 active duty National Servicemen already constitutes nearly 80% (3 billion Singapore Dollars versus 4 billion Singapore Dollars) of this amount, not to mention the cost of maintaining *another* 300,000 extra

professionals to replace manpower in the NS reserve. Dollar for dollar, it is difficult to argue against the cost-effectiveness of NS in lieu of an all-volunteer professional force.

Costs aside, the argument that a smaller, fully professional all-volunteer force would be all that Singapore requires for its defense fails to take into account the size of the SAF with NS reserves and full-time National Servicemen in relation to Singapore's overarching military strategy. Prior to the 1980s, while the SAF was still in its relative infancy, the desired deterrent effect was one akin to a "poisonous" prey, where an adversary might conquer Singapore, but would pay a high price in doing so. Taking into account Singapore's lack of strategic depth, this strategy was premised on fighting an ultimately unwinnable war in Singapore territory, but dealing the adversary an unpalatable amount of damage in the process.⁶¹ With limited territory to cover, a smaller SAF might have been possible, although size still mattered as a deterrent. The most obvious flaw with this strategy, however, was its predisposition towards the entire country 'going down fighting.' Therefore, particularly since the 1990s, Singapore's strategy seems to favor bringing the fight forward to deal a severe blow to the adversary before any of its own territory is breached. This shift in strategy further emphasizes justifications for the size of the SAF as more than just a deterrent, but also to serve a real practical need: overcoming Singapore's strategic depth by pushing as far as 80 kilometers deep into an adversary's territory and defending Singapore's sea lines of communication as far distant as 1,600 kilometers out.⁶² In this context, an SAF of 350,000, including professionals, full-time National Servicemen, and National Service reserves seems plausible, even perhaps a little ambitious, when measured against a theoretical target such as, for example, the Malayan Peninsula.⁶³ For the purpose of comparison, Japan's efficient military required approximately 800,000 servicemen when it

invaded a similarly-sized and shaped piece of land, the Liaotung Peninsula, during the Russo-Japanese War of 1904-1905.⁶⁴

The justifications for NS on the preceding point also apply in the case of calling for Singapore's defense to be centered on a smaller all-volunteer force because declining birth rates mean that the numbers required for NS cannot be sustained indefinitely. It is certainly true that declining birthrates translate into the eventual contraction of each year's pool of eligible male Singaporeans, but to simply call for a scaling back of NS is not the solution. In any case, this is bound to naturally occur in response to the demographics. What is important to remember as this happens is that even as Singapore faces a manpower crunch in defense, this does not change its security outlook. It will still have to overcome its lack of strategic depth and it will still be a small country in an area where it can easily be threatened by far larger neighbors. In the 1960s, the solution was, as explained earlier, to implement the current system of NS, for the challenge was not so much a lack of manpower as it was a lack of the existence of a credible military. Today, a credible military exists with a clear strategy, but it now faces the prospect of declining manpower. Some solutions that the government continues to pursue are technology as a force multiplier and revamps to its human capital strategy such as updated career schemes, which allow mid-to-late civilian-to-military career changes for specific vocations.⁶⁵ These are, for the most part, in recognition of the SAF's manpower limitations and work to counter the effects of shrinking NS cohorts.

Technology, however, cannot mature and replace manpower overnight, and this is where the view that leveraging on technology and advanced hardware can reduce the demands of full-time NS on eligible male Singaporeans is caught in a conundrum.⁶⁶ While it is true that technology does offer the potential of reducing demands on manpower, the accompanying

shortage of manpower in the near future is a very powerful counterforce. Military technology is a long-term investment and development that given time will meet with and, it is hoped, help account for more of Singapore's natural manpower decline, but unless technological advances are unexpectedly accelerated, it seems unlikely that technology alone will precipitate any drastic reduction in current NS obligations. Relatedly, this same call by critics for increased technological innovation in the military to relieve manpower demands runs counter to calls by others for a decrease in NS obligations through increased training efficiency. One of the pitfalls of technology is that in many cases, the more advanced it becomes, especially in a military context where it enables ever-more complex combined arms and joint operations, often the steeper the learning curve is.⁶⁷ This is part of the reason that the SAF today places great emphasis on the development of thinking soldiers, with every last man a leader in his own realm.⁶⁸ This in turn has a tendency to demand more intensive training and grooming, which negates efforts to shorten training durations.

The SAF's thinking soldier leads to a discussion of another point of contention. This is about criticism that many National Servicemen feel they are not as gainfully employed as they otherwise could be while serving out their NS obligations. Indeed, this is both a benefit and a drawback of universal conscription. When, regardless of social standing, all members of a given population are eligible to be drafted into an organization, the resulting population within that organization tends to represent an accurate microcosm of society with all of its stratifications, particularly, in this case, academic backgrounds.⁶⁹ When universal conscription is not in place and participation in an organization is voluntary, it is only natural that certain trends would develop in the profile of the pool of people who choose to join. Such was the case in the United States as it prepared to transition towards an all-volunteer force in the early 1970s: where

previously there was a balanced mix of both tertiary-educated and secondary-educated recruits, the post-draft trend reflected a greater tendency for those already equipped with tertiary educations to shun military service, while those equipped only with secondary educations displayed a continued interest in military service.⁷⁰

There are a number of explanations for the preceding observations, ranging from the relative generosity of military remuneration to the opportunity to pursue government-sponsored tertiary education, but these need not be elaborated here. What is most significant to Singapore is that the range of job requirements in the military will always be wide, covering everything from menial tasks to complex strategizing and planning. Given the general academic affluence of Singapore's population and the socially-representative profile of SAF National Servicemen as a result of universal military conscription, it is almost inevitable that there will be cases of disparity between how some servicemen are employed and their qualifications. The natures of some jobs in the military have not changed, but the quality of the people being recruited, a reflection of an advancing society, has increased dramatically.

Next on the critics' list against NS is the perception that a reserve force would be slower to become operationally ready should a conflict arise, and being non-professional it would be less motivated to fight. The Israel Defense Forces (IDF), which played a very influential role in shaping NS in Singapore, was cited as an example.⁷¹ In response to its relative defeat during the Second Lebanon War of 2006, an official inquiry revealed pitfalls in mobilizing the army's reserve forces in time for a ground offensive, which manifested itself in the form of insufficient pre-deployment training and equipping.⁷² This argument, however, fails to consider the entire facts of the issue. As much as it faces perpetual external hostilities, Israel was caught unprepared for the conflict in mid-2006, sparked mainly by the kidnapping of two of its reserve soldiers by

Hezbollah. Moreover, the need to mobilize reserves for the conflict arose while the IDF was in the midst of transition towards a policy of reduction in the employment of reserves, no doubt contributing to delays in mobilization. Even so, reserves eventually ended up playing an important role.⁷³ Significantly, the same official inquiry found it was not so much that reserves failed the IDF in the conflict as it was the IDF as an organization that failed the reserves. It was the organization itself that delayed mobilizing reserves, while reserves were found to have fought well despite their country's overall defeat.⁷⁴ Again in the case of Israel, as shown during its victory in the Six Day War of 1967 with the use of significant reserve forces, a good system of conscription and reserves with effective mobilization can result in an overwhelmingly successful military force.⁷⁵ For Singapore, a country that does not face perpetual external threats of attack, war, if ever it should arise, is not likely to precipitate overnight.⁷⁶ Therefore, the system of NS would likely have sufficient warning to prepare the country and its population.

Preparing for such a war was, as earlier stated, just one facet of NS. Singapore's pioneer leaders recognized the benefits of a common military experience to nation-building, and beyond defense, it is exactly this aspect of NS that rebukes criticism of the system inflicting too high an opportunity cost for National Servicemen in a highly-competitive civilian working environment. Ironically, as much as NS might compete for manpower with civilian employers and detract from the competitive edge of National Servicemen, Singapore's economy as it exists today may never have been achieved without NS in the first place. In the early years, NS played an important role in jumpstarting the economy as conscription helped reduce the scale of unemployment, at least for a good two years, for the many eligible male Singaporeans who were drafted.⁷⁷ Today, the defense ecosystem in Singapore itself is one of the country's largest employers, considering the size of the SAF and the robust domestic defense industry upon which it heavily depends.⁷⁸

Looking deeper into the broad notion of nation-building, NS and the educational training it provides in addition to military skills can also partly be credited with helping Singapore build a disciplined and hard-working workforce in so short a time.⁷⁹ The results are telling: from a population that began with just 57 percent literacy 46 years ago, Singapore today is recognized as one of the most competitive economies in the world.⁸⁰

Mr. Lee, the country's first prime minister, continues to insist that Singapore's economy and defense are inseparable – that each depends on the other because defense insures the materials and stable environment that allow the economy to develop free of fear from ruinous security uncertainty.⁸¹ While his perspectives as founder of the very government that implemented NS in the first place may be dismissed by critics as biased, perhaps his credentials speak to the merit of his words. It was under his leadership that Singapore achieved its phenomenal transformation from a third to first world nation within a single generation, while at the same time galvanizing his reputation as one of the world's most respected statesmen.⁸² NS, therefore, may have certain drawbacks with the burden of service it places on its citizen reserves, but without this system, the very economy that attracts a wealth of employment to the tiny island-state may not ever have been achievable, at least not to the level of success seen today. It is also worth noting that the Singapore government is not blind to this drawback. As recently as November 2011, it reinforced legislature protecting Singaporeans against discrimination by employers.⁸³ The effectiveness of this move remains to be seen, but it is a reflection of the government's on-going commitment to refine a system that could never have been perfect to begin with.

Conclusion

Less than half of today's countries practice military conscription (approximately 74 of just below 200 countries). As noted earlier, in the first decade of this century alone, countries such as Croatia, France, Poland, Romania, Slovenia, Spain, and Sweden have ended conscription, making it appear to be a practice on the decline.⁸⁴ Most recently, Germany also suspended conscription in 2011.⁸⁵ Moreover, of the countries that today still practice military conscription, up to 13 of them practice only selective conscription, suggesting that conscription is enforced only to fulfill shortages in the military where natural volunteerism comes short.⁸⁶ Singapore falls within the remaining minority of just over 60 countries that practice universal military conscription for males of a certain age.

Does this imply that Singapore, with its system of NS, is riding on an unfavorable trend? The answer is not so distinct, but what works for one country may not work for another. As has been discussed, the best decision for Singapore can be made only when considering its unique external and internal circumstances.

From an external perspective, of the seven countries listed above that are known to have ended conscription in the past decade, it is notable that six (less Sweden) are members of the North Atlantic Treaty Organization in which their collective defense needs are theoretically vested.⁸⁷ This is a privilege that Singapore does not enjoy. While Singapore is party to cooperative security initiatives with its immediate and extra-regional neighbors to foster global and regional security, not since the end of AMDA in 1971 has Singapore's *own* security been guaranteed by a major external power.⁸⁸ Singapore has to provide for its own credible defense. To do so, it has earlier been argued that the small country needs to overcome its strategic depth by pushing any potential conflict beyond its immediate borders. In support of this strategy, an

SAF with a potential strength of approximately 350,000 personnel seems reasonable. Internally, however, Singapore is hard pressed to amass such numbers. To use the most recent German experience as an example, a country with a population of just over 80 million with a system of volunteerism has expressed concerns with obtaining sufficient manpower to sustain a military numbering 185,000 personnel.⁸⁹ By stark contrast, Singapore has a population of just over 5 million.⁹⁰ Needless to say, maintaining an SAF of 350,000 personnel presents exceeding concerns, not to mention a force of 350,000 volunteers.

Couple this demand with the fact that technology is, in the foreseeable generation, advanced enough to only achieve so much in replacing manpower and at the same time presents the double-edged sword of additional training demands to run a technologically-advanced and ever-complex military organization such as the SAF, and military conscription seems the only viable option for Singapore to maintain a credible defense in the foreseeable future. NS is here to stay, but what of the tradeoffs that the country might encounter in maintaining such a system?

Cost is not a point of contention, as it has been shown that an all-volunteer force would likely cost more than NS. The operational readiness of conscript reserves against that of volunteers also holds little merit – it can be overcome with the right processes and foresight as seen in the Israeli example. Nonetheless, with Singapore never having gone to war, perhaps this concern merits further attention by the SAF to ensure that mechanisms to ready its reserves in a time of conflict are indeed optimal.

As for safe-guarding the career opportunities of National Servicemen in a competitive job market, the Singapore government has already acknowledged by its recent actions that more needs to be done to ensure non-discriminatory employment practices. This effort should continue to be sustained, monitored, and if necessary, adjusted. Concerning Singapore's

abysmal birth rates and the strains this places on the pool of eligible military conscripts, not much more can be done from a strictly military perspective, for Singapore's security outlook does not change as a function of this. In the short term, strategies of leveraging on technology as well as updated career schemes are mitigating measures. In the long term, Singapore continues to encourage the citizen population to grow through whole-of-government strategies, the results of which are yet to be known.⁹¹ In terms of general motivation for NS, perhaps long-standing National Education and NCC efforts, while effective, could be reviewed in light of growing disproportionality between those obligated to serve and those who are ineligible, yet still benefit from the privileges of life in Singapore. Again, however, this does not change the need to maintain a sizeable SAF and in all likelihood, it is a surmountable challenge if other efforts to raise the citizen birth rate succeed.

Finally, the notion of many National Servicemen not being employed to their fullest potential while with the SAF is admittedly difficult to overcome, for as discussed, complex and menial jobs alike remain in the military, regardless of individual preferences. A willingness to serve in spite of this and other shortfalls, however, is to answer the call of national requirements, and ultimately reflective of each citizen's duty – citizens who through their sacrifices, reap the benefits of a prosperous and secure country that while striving to do its best, still has to work within recognized constraints and realities – the needs of the defense of Singapore being such a case in point. Singapore needs to keep NS to defend its interests and its citizens.

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² Kuan Yew Lee, *From Third World to First: The Singapore Story: 1965-2000* (New York, NY: Harper Collins Publishers, 2000), xiii-3.

³ United States Central Intelligence Agency, *The World Factbook* (Washington, DC: Central Intelligence Agency, 2011), 1-13, <https://www.cia.gov/library/publications/the-world-factbook/fields/2024.html#sn> (accessed November 9, 2011). No less than at least seven countries have abandoned conscription since the beginning of the last decade.

⁴ Up until 2006, NS terms had spanned two-and-a-half years. This was revised downwards to two years as of 2007. Commissioned officers, as well as servicemen equipped with certain special skills, may be required to serve until the age of 50.

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⁶ Singapore participates in internationally-mandated security, peace-keeping, and peace support operations, but has never been an actual belligerent.

⁷ Fook Kwang Han and others, eds., *Lee Kuan Yew: Hard Truths to Keep Singapore Going* (Singapore: Straits Times Press, 2011), 10.

⁸ Malcom H. Murfett and others, *Between Two Oceans: The Military History of Singapore From First Settlement to Final British Withdrawal* (Oxford: Oxford University Press, 1999), 306-312. Britain lost control over its possessions on the Malayan Peninsula and Singapore following Japan's expansionist invasion and occupation during the Second World War from 1942 to 1945. By the time British forces returned in the wake of Japan's defeat, it was clear that they could no longer remain indefinitely in the region as a colonial power. This was especially given their diminished stature resulting from defeat at the hands of the Japanese, their resultant inability to prevent the mistreatment of locals during the Japanese occupation, and emboldened Malay nationalism at the end of the war. Political pressure mounted in the years hence, with the Malay states of Britain's protectorate on the peninsula gaining independence as the Malayan Federation in 1957. As an outright British colony, the island of Singapore would follow suit only later as it first gained independent self-governance in 1957 before sovereignty in 1963.

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¹² *Ibid*, 11.

¹³ Ralf Emmers, “The Role of the Five Power Defence Arrangements in the Southeast Asian Security Architecture” (working paper, S. Rajaratnam School of Strategic Studies, April 20, 2010), 6-9.

¹⁴ Huxley, 40.

¹⁵ Murfett and others, 315.

¹⁶ Huxley, 12.

¹⁷ Eng Chuan Ong, “National Service in Singapore : early years,” *National Library Board Singapore – Singapore Infopedia*, October 9, 2002, http://infopedia.nl.sg/articles/SIP_692_2005-02-01.html (accessed September 8, 2011).

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²⁶ Lee, 1.

²⁷ Encyclopedia Britannica Online, s.v. “conscription,” <http://www.britannica.com/EBchecked/topic/133307/conscription> (accessed November 9, 2011).

²⁸ United States Government, Selective Service System, <http://www.sss.gov/Default.htm> (accessed November 9, 2011). The term “all” is a misnomer as there are notable exemptions including, for example, lawful non-immigrants on visas.

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- ⁴⁰ Singapore National Cadet Corps, Vision and Mission, http://www.ncc.org.sg/ncc/index.php?option=com_content&view=article&id=3&Itemid=8 (accessed November 15, 2011).
- ⁴¹ Foo Chan Wong, Major, Republic of Singapore Navy – Head Naval Recruitment Center, Republic of Singapore Navy, Singapore Armed Forces, email message to author.
- ⁴² Monetary Authority of Singapore, *Recent Economic Developments in Singapore* (Singapore: Monetary Authority of Singapore, 2011), 1, http://www.mas.gov.sg/resource/eco_research/eco_dev_ana/Recent_Economic_Developments.pdf (accessed November 15, 2011). The Singapore economy enjoyed high growth rates in 2010 that exceeded most expectations.
- ⁴³ Kenny Chee, "More NSFs extend stint voluntarily," *AsiaOne.com*, July 28, 2011, <http://www.asiaone.com/News/AsiaOne%2BNews/Singapore/Story/A1Story20110728-291398.html> (accessed November 15, 2011).
- ⁴⁴ Huxley, xix.
- ⁴⁵ Chiang, 40.
- ⁴⁶ Huxley, 94, and Chiang, 40.
- ⁴⁷ Rosemary Ingrid Dinklage, "American and German Children's Perceptions of War and Peace: A Photo-Communication Approach," (Doctoral Dissertation, University of Florida, 1986), 34-37, <http://ufdc.ufl.edu/>.
- ⁴⁸ The World Bank, *Singapore Local Economic Development: The Case of the Economic Development Board (EDB)*, site resource, 4, <http://siteresources.worldbank.org/INTLED/Resources/339650-1194284482831/4356163-1211318886634/SingaporeProfile.pdf> (accessed November 16, 2011).

⁴⁹ Priscilla Gan, "Switching Off the Internet: Uncovering Rights," *Singapore Law Review* Volume 7, Issue 14, March 20, 2011, <http://www.singaporelawreview.org/2011/03/switching-off-the-internet-uncovering-rights/> (accessed November 16, 2011).

⁵⁰ Yen Lin Ee, "Politicizing Blogs," *Singapore Law Review* Volume 7, Issue 14, March 20, 2011, <http://www.singaporelawreview.org/2011/03/politicizing-blogs/> (accessed November 16, 2011).

⁵¹ Two Singaporean websites were selected for this representation. The first is Little Speck (<http://littlespeck.com/>), a website aiming to contextualize broad trends affecting Southeast Asia, in particular Singapore as well as Indonesia and Malaysia. It was selected based not only on information available that was relevant to this work, but also on the relative merit of its content – it has been run for over ten years and mediated by a professional journalist (Mr. Seah Chiang Nee), whose credentials include employment and publication with Reuters, Singapore's own major English-language newspaper, *The Straits Times*, Malaysia's major English-language newspaper, *The Star*, and Yahoo! Southeast Asia. The second is The Online Citizen (<http://theonlinecitizen.com/>), a website featuring socio-political news in Singapore and encourages individual views in relation to this. Again, this site was selected based on criteria similar to that of the above. It has been mediated and run for over five years and due to its growing influence, has recently been licensed by the Media Development Authority of Singapore as a website propagating and discussing political issues related to Singapore.

⁵² Department of Statistics Singapore, *Census of Population 2010* (Singapore: Ministry of Trade and Industry, 2010), v, <http://www.singstat.gov.sg/pubn/popn/c2010acr.pdf> (accessed November 16, 2011). This figure includes permanent residents, who constitute approximately ten percent of Singapore's population. Although male permanent residents are eligible for NS, only those who were under 16.5 years of age when they gained permanent resident status under their parents or legal guardians are required to serve. For purposes here, it is presumed that this NS-eligible permanent resident population represents the minority of the ten percent of the population that is permanent residents in Singapore.

⁵³ Department of Statistics Singapore, *Population in Brief 2011* (Singapore: Prime Minister's Office, 2011), 7, <http://www.singstat.gov.sg/stats/themes/people/popinbrief2011.pdf> (accessed November 20, 2011).

⁵⁴ *Ibid*, 5.

⁵⁵ Singapore Democratic Party, Manifesto, <http://ge2011.yoursdp.org/solution/49/national-service> (accessed November 20, 2011).

⁵⁶ Channel News Asia, Singapore GE History, <http://www.ge.sg/history/> (accessed November 20, 2011). The PAP still won an overwhelming victory by any international standard with 81 out of 87 seats in parliament.

⁵⁷ Huxley, 93. This corresponds to the 20,000 average annual intake of conscripts for two-year terms.

⁵⁸ AFP, "Singapore raises 2011 defence budget," *StraitsTimes.com*, February 18, 2011, http://www.straitstimes.com/BreakingNews/Singapore/Story/STIStory_636273.html (accessed November 20, 2011).

⁵⁹ *Ibid*.

⁶⁰ Singapore Ministry of Defence, NSMen Website, http://www.mindef.gov.sg/imindef/mindef_websites/topics/nsmen/admin/PayMatters.html (accessed November 20, 2011).

⁶¹ Huxley, 56-57.

⁶² Ibid, 58-60.

⁶³ Ibid, 44-55. For reasons not necessary to cover for the objectives of this paper, Malaysia is assumed, in theory, to be a possible adversary of Singapore. Fortunately, ties have remained relatively amicable between both nations throughout their interconnected history.

⁶⁴ Historical Section for the Committee of Imperial Defence, *The Official History of the Russo-Japanese War, Part I, Second Edition* (London: Harrison and Sons, 1909), 21.

⁶⁵ Moss, 24.

⁶⁶ Peter W. Singer, "Wired for War: Welcome to Tomorrow's Battlefield, Today," *Air and Space Power Journal*, Second Quarter, June 1, 2009, <http://www.airpower.au.af.mil/apjinternational/apj-s/2009/2tri09/singereng.htm#Singereng> (accessed February 14, 2012), and David Glade "Unmanned Aerial Vehicles: Implications for Military Operations," (Occasional Paper No. 16, Center for Strategy and Technology, Air War College, Air University, Maxwell Air Force Base, 2000), 21-21, <http://www.dtic.mil/>. Technology that is fully capable of performing to human standards in military operations is, at best, not expected to mature until at least 2035. Even so, the concept of deployment is expected to be one of integration with human servicemen rather than of replacement.

⁶⁷ Morris Janowitz, *The Professional Soldier: A Social and Political Portrait* (New York: The Free Press, 1960), 64-67.

⁶⁸ Kee Nguan Goh, Bryan Tan, and Damian Lim, "Learning Army Thinking Soldier," *Pointer – Journal of the Singapore Armed Forces*, Volume 33, Number 4, (2007), http://www.mindef.gov.sg/imindef/publications/pointer/journals/2007/v33n4/Learning_Army_Thinking_Soldier.html (accessed November 21, 2011).

⁶⁹ John B. Keeley, ed., *The All-Volunteer Force and American Society* (Charlottesville: University Press of Virginia, 1978), 39-42.

⁷⁰ Allan Fisher and Martha DiSario, *Attitudes of Youth Toward Military Service in a Zero-Draft Environment: Results of a National Survey Conducted in November 1972* (Washington, DC: Human Resources Research Organization, Office of the Assistant Secretary of Defense [Manpower and Reserve Affairs], 1974), 89-90.

⁷¹ Ajax Copperwater, "Conscription – An Illusion of Security," The Online Citizen, comment posted December 20, 2010, <http://theonlinecitizen.com/2010/12/conscription-an-illusion-of-security/> (accessed November 16, 2011), and Huxley, 11.

⁷² Israel Ministry of Foreign Affairs, "Winograd Commission submits Interim Report," *mfa.gov.il*, April 30, 2007, <http://www.mfa.gov.il/MFA/Government/Communiques/2007/Winograd+Inquiry+Commission+submits+Interim+Report+30-Apr-2007.htm> (accessed November 20, 2011), and Weitz, 35.

⁷³ Weitz, 34-35.

⁷⁴ Winograd Commission, "English Summary of the Winograd Commission Report," *Nytimes.com*, January 30, 2008, <http://www.nytimes.com/2008/01/30/world/middleeast/31winograd-web.html?pagewanted=all> (accessed November 20, 2011).

⁷⁵ Weitz, 30.

⁷⁶ Bernard Loo, "Singapore's Defence Spending Under Scrutiny," Military Studies at S. Rajaratnam School of International Studies, posted February 18, 2011, <http://rsismilitarystudies.wordpress.com/2011/02/18/singapores-defence-spending-under-scrutiny/> (accessed November 20, 2011).

⁷⁷ Huxley, 101.

⁷⁸ Moss, 24.

⁷⁹ Huxley, 101.

⁸⁰ David Foo Seong Ng, "Strategic Management of Educational Development in Singapore," (working paper, World Bank, June 2006), 2, and IMD World Competitiveness Center, *World Competitiveness Yearbook 2011* (Lausanne, Switzerland: IMD International, 2011), 19, <http://www.imd.org/research/publications/wcy/upload/scoreboard.pdf> (accessed November 21, 2011).

⁸¹ Han and others, 10-11.

⁸² Fareed Zakaria, "A Conversation with Lee Kuan Yew – Meeting the Minister," *Foreign Affairs*, March / April 1994, <http://www.foreignaffairs.com/articles/49691/fareed-zakaria/a-conversation-with-lee-kuan-yew> (accessed November 21, 2011).

⁸³ Ewan Boey, "Don't hire, promote own kind at expense of Singaporeans," *Yahoo! News*, November 1, 2011, <http://sg.news.yahoo.com/don-t-hire--promote-at-expense-of-s-poreans--govt-to-foreign-managers.html> (accessed November 21, 2011).

⁸⁴ United States Central Intelligence Agency, 1-13.

⁸⁵ Alan Cowell, "The Draft Ends in Germany, but Questions of Identity Endure," *The New York Times*, July 1, 2011.

⁸⁶ United States Central Intelligence Agency, 1-13.

⁸⁷ North Atlantic Treaty Organization, *What is NATO? An introduction to the transatlantic Alliance* (Brussels, Belgium: Public Diplomacy Division, 2010), 5-6, http://www.nato.int/welcome/brochure_WhatIsNATO_en.pdf (accessed January 24, 2012).

⁸⁸ Moss, 25-26. Examples of security initiatives of which Singapore is a member include the Malacca Straits Patrol (MSP), a tri-lateral arrangement with Indonesia and Malaysia to provide security in the Malacca Straits against piracy in particular. Others, aside from FPDA as explained in the main paper, include defense exchanges with Japan and South Korea, as well as joint exercises with multiple foreign partners.

⁸⁹ German Federal Statistical Office, *Germany's Population by 2060: Results of the 12th coordinated population projection* (Wiesbaden, Germany: Statistisches Bundesamt, 2009), 12, <http://www.destatis.de/jetspeed/portal/cms/Sites/destatis/Internet/EN/Content/Publikationen/SpecializedPublications/Population/GermanyPopulation2060.property=file.pdf> (accessed January 25, 2012), and Cowell.

⁹⁰ Department of Statistics Singapore, *Population in Brief 2011*, 2.

⁹¹ Hsien Loong Lee, "Prime Minister's 2012 Chinese New Year Message," Prime Minister's Office, Singapore, posted January 22, 2012,

http://www.pmo.gov.sg/content/pmosite/mediacentre/speechesinterviews/primeminister/2012/January/prime_minister_2012_chinesenewyearmessage.html (accessed January 25, 2012).

Appendix A

Cost of Maintaining an Active-Duty Conscript Force of 40,000 Over Two Years

Route of Development (Non-Medical or Dental NS Army Lieutenant in the Singapore Armed Forces)	Monthly NS Allowance¹
2 nd Lieutenant	S\$940
Lieutenant	S\$1,120
Average	$(S\$940 + S\$1,120) / 2 = \textbf{S\$1,030 (A)}$
Average Cost of Maintaining a Single Active-Duty Conscript (Lieutenant) Over Two Years	S\$1,030 x 24 months = S\$24,720 (B)
<i>Formula: A x 24 months of service</i>	
Total Average Cost of Maintaining 40,000 Active-Duty Conscripts (Lieutenant) Over Two Years	S\$24,720 x 40,000 pax = <u>S\$988,800,000</u>
<i>Formula: B x 40,000 pax</i>	

Table 1: A tabulated calculation of the theoretical cost of maintaining an active-duty conscript force of 40,000 personnel in the SAF over two years

The following assumptions were made in obtaining the figures used for the calculations above in Table 1. This is due to limitations of the available open-source information on SAF military pay:

- The theoretical active-duty force is comprised fully of army Lieutenants (O-2 equivalents), who would theoretically have spent 12 months as 2nd Lieutenants (O-1 equivalents). For this reason, the pay of both ranks is averaged and the result is used to arrive at a pay figure for 24 months. This is because consistent open-source pay information was not available for other ranks.
- No consideration is given in this calculation for time spent in development as Recruits with Recruit pay and as Officer Cadets with Officer Cadet pay, which would realistically have comprised a total of 12 months. This is because the necessary pay information was not available.
- There is no segregation based on educational qualifications as such considerations are transparent in the drafting of active-duty conscripts.

¹ Singapore Ministry of Defence, National Service Portal, http://www.ns.sg/nsPortal/appmanager/nsp/default?_nfpb=true&_pageLabel=nsPortal_iPrepNS (accessed November 20, 2011).

Cost of Maintaining a Professional All-Volunteer Force of 40,000 Over Two Years

Academic Qualifications	Route of Development (Non-Medical or Dental Professional Army Lieutenant in the Singapore Armed Forces)	Monthly NS Allowance²
High-School Diploma	2 nd Lieutenant	S\$2,540
	Lieutenant	S\$2,700
	Average	$(S\$2,540 + S\$2,700) / 2 = \textbf{S\$2,620 (A)}$
Bachelor's Degree	2 nd Lieutenant	S\$2,540
	Lieutenant	S\$3,750
	Average	$(S\$2,540 + S\$3,750) / 2 = \textbf{S\$3,145 (B)}$
Bachelor's Degree (Cum Laude)	2 nd Lieutenant	S\$2,540
	Lieutenant	S\$3,970
	Average	$(S\$2,540 + S\$3,970) / 2 = \textbf{S\$3,255 (C)}$
Bachelor's Degree (Magna Cum Laude)	2 nd Lieutenant	S\$2,540
	Lieutenant	S\$4,190
	Average	$(S\$2,540 + S\$4,190) / 2 = \textbf{S\$3,365 (D)}$
Bachelor's Degree (Summa Cum Laude)	2 nd Lieutenant	S\$2,540
	Lieutenant	S\$4,510
	Average	$(S\$2,540 + S\$4,510) / 2 = \textbf{S\$3,525 (E)}$
Average Cost of Maintaining a Single SAF Professional (Lieutenant) Over Two Years from Fresh Recruitment		$[(S\$2,620 + S\$3,145 + S\$3,255 + S\$3,365 + S\$3,525) / 5] \times 24 \text{ months} = \textbf{S\$76,368 (F)}$
<i>Formula: $[(A + B + C + D + E) / 5 \text{ categories of Academic Qualifications}] \times 24 \text{ months of service}$</i>		
Total Average Cost of Maintaining 40,000 SAF Professionals (Lieutenant) Over Two Years from Fresh Recruitment		$\textbf{S\$76,368} \times 40,000 \text{ pax} = \textbf{S\$3,054,720,000}$
<i>Formula: $F \times 40,000 \text{ pax}$</i>		

Table 2: A tabulated calculation of the theoretical cost of maintaining a professional force of 40,000 personnel in the SAF over two years

The following assumptions were made in obtaining the figures used for the calculations above in Table 2. This is due to limitations of the available open-source information on SAF military pay:

² Singapore Ministry of Defence, Army Recruitment Centre,
<http://www.mindef.gov.sg/arc/careers.html#careers=officer&sub=salary-benefits> (accessed November 20, 2011).

- The theoretical active-duty force is comprised fully of army Lieutenants (O-2 equivalents), who would theoretically have spent 12 months as 2nd Lieutenants (O-1 equivalents). For this reason, the pay of both ranks is averaged and the result is used to arrive at a pay figure for 24 months. This is because consistent open-source pay information was not available for other ranks.
- No consideration is given in this calculation for time spent in development as Recruits with Recruit pay and as Officer Cadets with Officer Cadet pay, which would realistically have comprised a total of 12 months. This is because the necessary pay information was not available.
- The proportion of persons with qualifications in High-School Diplomas, Bachelor's Degrees, Bachelor's Degrees (Merit), Bachelor's Degrees (Honors), and Bachelor's Degrees (Upper Honors) is assumed to be equal. This is because no educational breakdown of the actual SAF population is available.

Appendix B

Cost of Compensation to Citizen Reserves Deployed for Annual Training

Singapore Per Capita Gross Domestic Product ³	S\$59,813
Singapore Per Capita Gross Domestic Product by Day	S\$59,813 / 365 days = 164 (A)
Total Average Loss of Civilian Income Over 40 Days of Reserve Training <i>Formula: A x 40 days of reserve training</i>	164 x 40 days = S\$6,560 (B)
Total Average Loss of Civilian Income Over Two Years for 300,000 Reserves (assuming 40 Days of Reserve Training Per Year) <i>Formula: B x 300,000 pax x 2 years</i>	S\$6,560 x 300,000 pax x 2 years = <u>S\$3,960,000,000</u>

Table 3: A tabulated calculation of the theoretical cost of compensating the full citizen reserve of the SAF for annual training over two years

The following assumptions were made in obtaining the figures used for the calculations above in Table 3. This is due to limitations of the available open-source information on SAF military pay:

- All citizen reserves, totaling approximately 300,000 personnel, are deployed for the maximum limit of 40 days per person per year for annual training over two years.
- The Singapore Per Capita Gross Domestic Product, which is used to arrive at an average daily income for each of the 300,000 citizen reserves in their civilian jobs, is assumed to be representative.

³ Department of Statistics Singapore, National Accounts,
<http://www.singstat.gov.sg/stats/themes/economy/hist/gdp.html> (accessed December 11, 2011).

Glossary

AMDA	Anglo-Malayan Defense Agreement (A now-defunct defense treaty between Malaysia, Singapore, the United Kingdom, Australia, and New Zealand)
FPDA	Five Power Defense Arrangement (A consultative security arrangement that provides for consultation, not guaranteed military commitment, between Malaysia, Singapore, the United Kingdom, Australia, and New Zealand)
IDF	Israel Defense Forces (Israel's military)
NCC	National Cadet Corps (Singapore's military and police-based extra-curricular activity for middle to high-school students)
NS	National Service (Singapore's system of military conscription.)
PAP	People's Action Party (Singapore's ruling political party and the party of its founding leaders)
SAF	Singapore Armed Forces (Singapore's military, comprising the Army, Republic of Singapore Navy, and the Republic of Singapore Air Force)
SDP	Singapore Democratic Party (An officially-recognized opposition political party)
WP	Worker's Party (Singapore's most dominant opposition political party)

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